

What is claimed is:

1. A process for bi-directionally transferring data between a mobile phone and a computing device, comprising
 - 5 selecting between an uploading mode and a downloading mode;
if the downloading mode is selected,
 - firstly downloading a first data from the mobile phone to an intermediate device under a first master-slave protocol, wherein the intermediate device herein acts as a master device under the first master-slave protocol; and
 - secondly transmitting the first data from the intermediate device to the computing device under a second master-slave protocol, wherein the intermediate device herein acts as a slave device under the second master-slave protocol; and
 - 10 if the uploading mode is selected,
 - firstly transmitting a second data from the computing device to the intermediate device under the second master-slave protocol, wherein the intermediate device herein acts as a slave device under the second master-slave protocol; and
 - secondly uploading the second data from the intermediate device to the mobile under the first master-slave protocol, wherein the intermediate device herein acts as a master device under the first master-slave protocol.
- 25 2. The process of Claim 1, further comprising

prior to downloading the first data from the mobile phone to the intermediate device, performing a security check step for verifying the mobile phone.
- 30 3. The process of Claim 2, further comprising

prior to uploading the second data from the intermediate device to the mobile phone, performing the security check step for verifying the mobile phone.

- 5 4. The process of Claim 2, wherein the security check step includes
 pre-registering in the intermediate device an identification token of
 the mobile phone.
- 10 5. The process of Claim 2, wherein the security check step includes
 downloading a mobile phone serial number from the mobile device
 to the intermediate device; and
 comparing the downloaded mobile phone serial number with a pre-
 registered mobile phone serial number stored in the intermediate
 device for security check.
- 15 6. The process of Claim 1, further comprising
 prior to uploading the second data from the intermediate device to
 the mobile phone, converting the second data to a format suitable for
 receipt by the mobile device.
- 20 7. A medium, having a program recorded thereon, wherein the program
 makes an intermediate device execute a procedure comprising the following
 steps for bi-directionally transferring data between a mobile phone and a
 computing device, comprising
 selecting between an uploading mode and a downloading mode;
 if the downloading mode is selected,
 - firstly downloading a first data from the mobile phone to the
 intermediate device under a first master-slave protocol, wherein the
 intermediate device herein acts as a master device under the first
 master-slave protocol; and

- secondly transmitting the first data from the intermediate device to the computing device under a second master-slave protocol, wherein the intermediate device herein acts as a slave device under the second master-slave protocol; and
5 if the uploading mode is selected,
 - firstly transmitting a second data from the computing device to the intermediate device under the second master-slave protocol, wherein the intermediate device herein acts as a slave device under the second master-slave protocol; and
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 - secondly uploading the second data from the intermediate device to the mobile under the first master-slave protocol, wherein the intermediate device herein acts as a master device under the first master-slave protocol.
- 15 8. A computer program element which makes an intermediate device execute a procedure comprising the following steps for bi-directionally transferring data between a mobile phone and a computing device, comprising
 - selecting between an uploading mode and a downloading mode;
 - if the downloading mode is selected,
 - firstly downloading a first data from the mobile phone to the intermediate device under a first master-slave protocol, wherein the intermediate device herein acts as a master device under the first master-slave protocol; and
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 - secondly transmitting the first data from the intermediate device to the computing device under a second master-slave protocol, wherein the intermediate device herein acts as a slave device under the second master-slave protocol; and
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 - secondly transmitting the first data from the intermediate device to the computing device under a second master-slave protocol, wherein the intermediate device herein acts as a slave device under the second master-slave protocol; and
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 - firstly transmitting a second data from the computing device to the intermediate device under the second master-slave protocol,

wherein the intermediate device herein acts as a slave device under the second master-slave protocol; and

5 - secondly uploading the second data from the intermediate device to the mobile under the first master-slave protocol, wherein the intermediate device herein acts as a master device under the first master-slave protocol.

9. A process for bi-directionally transferring data between a mobile phone and a computing device, comprising

10 selecting between an uploading mode and a downloading mode; if the downloading mode is selected,

- firstly downloading a first data from the mobile phone to an intermediate device under a first protocol; and

- secondly transmitting the first data from the intermediate device to the computing device under a second protocol; and

15 if the uploading mode is selected,

- firstly transmitting a second data from the computing device to the intermediate device under the second protocol; and

- secondly uploading the second data from the intermediate device to the mobile under the first protocol.

20 10. The process of Claim 9, wherein the first and second protocols are different master-slave protocols.

25 11. An intermediate device for assisting bi-directional data transfer between a mobile phone and a computing device, comprising

a mobile phone interface for connecting to the mobile phone;

a computing device interface for connecting to the computing device;

30 a controller for controlling data flow through the mobile phone interface and the computing device interface; and

- a user interface for allowing a user to select the intermediate device to work in an uploading mode or a downloading mode,
wherein if the uploading mode is selected, the controller controls to receive a second data from the computing device to the intermediate device through the computing device interface under a second protocol, and wherein the controller further controls to upload the second data from the intermediate device to the mobile through the mobile phone interface under a first protocol.
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- 10 12. The intermediate device of Claim 11, wherein if the downloading mode is selected, the controller controls to download a first data from the mobile device to the intermediate device through the mobile device interface under the first protocol, and wherein the controller further controls to send the first data from the intermediate device to the computing device through the computing interface under the second protocol.
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13. The intermediate device of Claim 12, wherein the first and the second protocols are master-slave protocols, and wherein the intermediate device acts as a master device under the first protocol, but acts as a slave device under the second protocol.
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14. The intermediate device of Claim 11, further comprising a converter controlled by the controller for converting the second data retrieved from the computing device to a format suitable for receipt by the mobile device prior to uploading to the mobile device.
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